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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,068	01/28/2004	Beom-ro Lee	46038	9473
1609	7590	10/06/2005	EXAMINER	
ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON,, DC 20036			LEE, SUSAN SHUK YIN	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,068

Applicant(s)

LEE, BEOM-RO

Examiner

Susan S. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 2-5 and 9-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/28/04, 5/27/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because on line 4, "comprises" should be avoided.

Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Oath/Declaration

A new oath/declaration is required since the one filed 1/28/04 is not a good copy.

Claim Objections

Claims 9-16 are objected to because of the following informalities:

As to claim 9, line 5, "the fusing roller" lacks antecedent basis.

As to claim 12, line 2, "the surface temperature Temp" lacks antecedent basis.

As to claim 12, line 3, "the target surface temperature Tt" lacks antecedent basis.

As to claim 15, line 5, "the fusing roller" lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serizawa (6,634,817) in view of Satoh et al. (5,504,567) and Otsuka (2003/0218769).

Serizawa discloses an image forming apparatus having a fixing temperature control unit 106 performs temperature control of the fixing unit 7 based on instruction from the engine control unit 102, detection of abnormality in the fixing unit 7, and the like, based on instructions from the engine control unit 102. A sheet-sensor input unit 107 transmits information from sheet sensors within the sheet feeding units (the cassette and the tray) and a sheet conveying path to the engine control unit 102. A jam detection unit 108 detects a failure during sheet conveyance. Note column 2, lines 10-18.

Serizawa differs from the instant invention by not disclosing a sensor for sensing temperature of the fusing roller; and a controller for determining whether it is time to drive the heater of a fusing roller when a sheet is fed and driving the heater when it is time to start the heater.

Satoh et al. discloses a controller for a roller fixing unit to set to perform a power source connection for every sheet of print media coming out from an intermediate

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transfer unit. A sensor 10 is used to sense the temperature of the fixing roller 1. Note Fig. 5; abstract; column 4, lines 40-46; and column 10, lines 4-25.

Otsuka discloses an image forming apparatus with a CPU 11 using ROM 12 to store a system program for controlling the CPU 11, software for printing, software for the energization to a heater 16 of a heat fuser (page 3, paragraph [0045]), and so on. The software for energization of the heater 16 includes data on a condition (energization start condition) for determining energization start timing, a condition (energization stop condition) for determining energization stop timing, and a condition during the energization to the heater 16 such as an applied current value. The energization start condition includes the temperature around the heater 16 being no more than the predetermined temperature. Note page 3, paragraph [0039].

It would have been obvious to one of ordinary skill the art at the time the invention was made to modify the apparatus of Serizawa with that of Satoh et al. so that further control of heating can be obtained and Otsuka so that power saving of the apparatus can be obtained (note page 1, paragraph [0008]). Although the jam detection unit 108 of Serizawa do not show where its jam sensors are located in the image forming apparatus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place the jam sensor below one of the pick rollers of Serizawa, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Allowable Subject Matter


Claims 2-5 and 9-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Toyohara et al., Kagawa et al., Hasegawa et al. Ito et al., Miyoshi (Japan, 672), and Suzuki (Japan, 901) disclose art in fixing devices. Katsuma et al. discloses a thermal printing method with heating start timing controls. Lee et al., and Iwasaki (Japan, 566) disclose art in paper jam detectors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 571-272-2137. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Art Grimley can be reached on 571-272-2136 or 571-272-2800 (Ext. 52). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Susan S. Lee
Primary Examiner
Art Unit 2852

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